

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>	Attorney Docket Number	4239-66168-03
	Application Number	10/561,487
	Filing Date	December 19, 2005
	First Named Inventor	Drayna
	Art Unit	
	Examiner Name	

### U.S. PATENT DOCUMENTS

Copies of U.S. Patent documents do not need to be provided, unless requested by the Patent and Trademark Office. For patents, provide the patent number and the issue date. For published U.S. applications, provide the publication number and the publication date. For unpublished pending patent applications, provide the application number and the filing date.

Examiner's Initials*	Cite No. (optional)	Number	Publication Date	Name of Applicant or Patentee
		2002/0048763	04/25/2002	Penn <i>et al.</i>
		2002/0094551	07/18/2002	Adler
		2002/0128433	09/12/2002	Yao <i>et al.</i>
		2002/0143151	10/03/2002	Yao <i>et al.</i>
		2003/0022278	01/30/2003	Zuker <i>et al.</i>
		2003/0143668	07/31/2003	Suwa <i>et al.</i>
		2003/0235833	12/25/2003	Suwa <i>et al.</i>
		5,380,765	01/10/1995	Hirsch
		5,972,621	10/26/1999	Tartaglia <i>et al.</i>
		6,159,700	12/12/2000	Aiyar <i>et al.</i>
		6,383,778	05/07/2002	Zuker <i>et al.</i>
		6,521,747	02/18/2003	Anastasio <i>et al.</i>
		6,540,978	04/01/2003	Margolskee <i>et al.</i>
		6,558,910	05/06/2003	Zuker <i>et al.</i>

### FOREIGN PATENT DOCUMENTS

Examiner's Initials*	Cite No. (optional)	Country	Number	Publication Date	Name of Applicant or Patentee
		CA	2418130	02/03/2003	Japan Science and Technology Corporation

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DATE CONSIDERED: 07/25/2008

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		EP	1270724	01/02/2003	National Institute of Advanced Industrial Science and Technology
		WO	99/06830	02/11/1999	The Regents of the University of California
		WO	00/21985	4/20/2000	Genset
		WO	00/38536	07/06/2000	Mount Sinai School of Medicine of New York University
		WO	01/18050	03/15/2001	The Regents of the University of California
		WO	01/66563	09/13/2001	Senomyx, Inc.
		WO	01/77676	10/18/2001	Senomyx, Inc.
		WO	02/068579	09/06/2002	PE Corporation
		WO	02/103005	12/27/2002	National Institute of Advanced Industrial Science and Technology
		WO	02/16548	02/28/2002	Japan Science and Technology Corporation
		WO	02/36622	05/10/2002	Senomyx, Inc.
		WO	03/006482	01/23/2003	Senomyx, Inc.
		WO	03/008627	01/30/2003	The Government of the United States of America as represented by the Secretary of the Department of Health and Human Services
		WO	2004/029087	04/08/2004	Deutsches Institut Für Ernährungsforschung

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		Adler <i>et al.</i> , "A Novel Family of Mammalian Taste Receptors," <i>Cell</i> 100:693-702 (2000)
		Anne-Spence <i>et al.</i> , "Estimating the Recombination frequency for the PTC-Kell linkage," <i>Hum. Genet.</i> 67:183-186 (1984)
		Bradbury, "Taste Perception: Cracking the code," <i>PLoS Biology</i> 2(3):0295-0297 (2004)
		Bufe <i>et al.</i> , "The human TAS2R16 receptor mediates bitter taste in response to $\beta$ -glucopyranosides," <i>Nature Genetics</i> 32:397-401 (2002)
		Bufe <i>et al.</i> , "The Molecular Basis of Individual Differences in Phenylthiocarbamide and Propylthiouracil Bitterness Perception," <i>Current Biol.</i> 15:322-327 (2005)
		Bufe, "Dissertation zur Erlangung des Doktorgrades an der Universitat Potsdam: Identifizierung and Charakterisierung von Bitterezeptoren," <a href="http://www.pub.ub.uni-potsdam.de/2004/0013/bufe.pdf">http://www.pub.ub.uni-potsdam.de/2004/0013/bufe.pdf</a> (May 2003)
		Chandrashekar <i>et al.</i> , "T2Rs Function as Bitter Taste Receptors," <i>Cell</i> 100:703-711, (2000)
		Conte <i>et al.</i> , "Identification and characterization of human taste receptor genes belonging to the TAS2R family," <i>Cytogenet. Genome. Res.</i> 98:45-53 (2002)
		Drayna, <i>et al.</i> , "Genetic analysis of a complex trait in the Utah Genetic Reference Project: a major locus for PTC taste ability on chromosome 7q and a secondary locus on chromosome 16p," <i>Hum. Genet.</i> 112:567-572 (2003)
		Gillis, "Genetics May Hold Clues to Smell, Taste," <i>Los Angeles Times</i> (June 4, 2001)
		Guo and Reed, "The genetics of phenylthiocarbamide perception," <i>Annals of Human Biology</i> 28(2):111-142 (2001)
		Kim <i>et al.</i> , "Genetics of Human Taste Perception," <i>J. Dent. Res.</i> 83(6):448-453 (2004)

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		Kim <i>et al.</i> , "Positional Cloning of the Human Quantitative Trait Locus Underlying Taste Sensitivity to Phenylthiocarbamide," <i>Science</i> 299:1221-1225 (2003)
		Kim <i>et al.</i> , "Worldwide Haplotype Diversity and Coding Sequence Variation at Human Bitter Taste Receptor Loci," <i>Human Mutation</i> 26(3):199-204 (2005)
		Lipshutz <i>et al.</i> , "High density synthetic oligonucleotide arrays," <i>Nature Genetics Suppl.</i> 21:20-24 (1999)
		Matsunami <i>et al.</i> , "A family of candidate taste receptors in human and mouse," <i>Nature</i> 404:601-604 (2000)
		McLaughlin <i>et al.</i> , "Gustducin is a taste-cell-specific G protein closely related to the transducins," <i>Nature</i> 357:563-569 (1992)
		Miyajima <i>et al.</i> , "Expression of murine and human granulocyte-macrophage colony-stimulating factors in <i>S. cerevisiae</i> : mutagenesis of the potential glycosylation sites," <i>EMBO J.</i> 5:1193-1197 (1986)
		Offermanns and Simon, "Gα15 and Gα16 couple a wide variety of receptors to phospholipase C," <i>J. Biol. Chem.</i> 270:15175-15180 (1995)
		Sainz <i>et al.</i> , "Identification of a novel member of the T1R family of putative taste receptors," <i>J. Neurochem.</i> 77(3):896-903 (2001)
		Shi <i>et al.</i> , "Adaptive Diversification of Bitter Taste Receptor Genes in Mammalian Evolution," <i>Mol. Biol. Evol.</i> 20:805-814 (2003)
		Takeda <i>et al.</i> , "Identification of G protein-coupled receptor genes from the human genome sequence," <i>FEBS Letters</i> 520:97-101 (2002)

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		Tepper, "Genetics of Perception '98: 6-n-Propylthiouracil: A Genetic Marker for Taste, with Implications for Food Preference and Dietary Habits," <i>Am. J. Hum. Genet.</i> 63:1271-1276 (1998)
		The Sanger Center, "Toward a complete human genome sequence," <i>Genome Research</i> 8:1097-1108 (1998)
		Ueda <i>et al.</i> , "Identification of coding single-nucleotide polymorphisms in human taste receptor genes involving bitter tasting," <i>BBRC</i> 285(1):147-151 (2001)
		Vaidehi <i>et al.</i> , "Prediction of structure and function of G protein-coupled receptors," <i>PNAS</i> 99:12622-12627 (2002)
		Wang <i>et al.</i> , "Relaxation of selective constraint and loss of function in the evolution of human bitter taste receptor genes," <i>Human Molecular Genetics</i> 13(21):2671-2678 (2004)
		Wooding <i>et al.</i> , "Independent evolution of bitter-taste sensitivity in humans and chimpanzees," <i>Nature</i> 440:930-934 (2006)
		Wooding <i>et al.</i> , "Natural Selection and Molecular Evolution in <i>PTC</i> , a Bitter-Taste Receptor Gene," <i>Am. J. Hum. Genet.</i> 74:637-646 (2004)
		Wu <i>et al.</i> , "Expression of bitter taste receptors of the T2R family in the gastrointestinal tract and enteroendocrine STC-1 cells," <i>PNAS</i> 99(4):2392-2397 (2002)
		Zhang <i>et al.</i> , "Coding of sweet, bitter, and umami tastes: different receptor cells sharing similar signaling pathways," <i>Cell</i> 112(3):293-301 (2003)
		Zhao <i>et al.</i> , "The receptors for mammalian sweet and umami taste," <i>Cell</i> 115(3):255-266 (2003)

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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**In re application of:** Drayna et al.**Application No.** 10/561,487**Filed:** December 19, 2005**Confirmation No.** 2289**For:** VARIANTS OF HUMAN TASTE  
RECEPTOR GENES**FILED VIA EFS****Examiner:****Art Unit:****Attorney Reference No.** 4239-66168-03**TRANSMITTAL LETTER**

Submitted herewith for filing in the application referenced above are the following:

- ☒ Information Disclosure Statement  
☒ Form 1449 and 48 of the references cited thereon
- ☒ The Director is hereby authorized to charge any additional fees that may be required, or credit over-payment, to Deposit Account No. 02-4550.

Respectfully submitted,

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cc: Docketing